

USC STAT NEWS

DEPARTMENT OF STATISTICS
UNIVERSITY OF SOUTH CAROLINA

(<http://www.stat.sc.edu/>)

January 2004

(803)-777-7800

James D. Lynch, Chairman

E-mail: lynch@stat.sc.edu

From the Chair

As we begin this New Year, we reflect back on 2003, year eighteen of the Department of Statistics. During this year we have seen much change and progress in the department.

Joe Padgett has retired but is still actively involved with the department in teaching and research. Lori Thombs has left for a position at the University of Missouri. We have been given permission to fill their vacancies but two such valuable faculty will be hard to replace.

To help offset these vacancies short term, we have hired an additional instructor, Stan Haines. By next Fall, with Stan and the two vacant positions filled, the Department will have increased to 15.5 faculty positions. This increase is justified in part by enrollments that have increased by over 45% since Fall 2000.

Another major change is in the STATLab where Roumen Vesselinov has taken over as manager with the departure of Michele Nichols to a nutrition center affiliated with the Department of Biostatistics and Epidemiology.

The Department still occupies most of the second floor of LeConte with some graduate student offices on the first floor.

The number of undergraduate majors has stayed relatively constant at around twenty-five, but this year there was a substantial increase in graduate students to over sixty. Thirty-four of these are supported on assistantships of various types. In spite of the economy, our graduates are in demand, with all our masters and Ph.D. students having obtained jobs. This is indicative of the value of a statistics degree.

The department continues to be very productive in research with numerous publications and with over 2.5 million dollars in contracts and grants in effect. This is all indicative of the high quality of the department and supports USC's objective to become a top teaching and research university, and our stated goal to become one of the top

programs in the South within the next few years. Our growth and continued strong scholarly activities indicate that this goal is a real possibility, one that we all can be proud of upon its achievement.

Our continued progress toward this goal cannot be achieved without your help. You are a vital part of our student-recruiting network and you enhance the overall reputation of the department through your professional success. Your endowment contributions help us attract top students and faculty and are especially important in these times of dwindling budgets. Thank you for your strong and continued support!

I hope this past holiday season found you healthy and in good spirits and that the New Year is full of joy and happiness!

Jim Lynch, Chair

Faculty and Staff News

Changes in the faculty and staff this year include the addition of one new instructor who joined us in August:

Stan Haines joined the Department as an Instructor on August 16, 2003. Stan received his BS degree in Mathematics in the Department of Mathematics here at USC Columbia, and his MS degree in Operations Research and Systems Analysis from the Georgia Institute of Technology in 1991. Most recently, Stan was a Mathematics Teacher at Richland Northeast High School in Columbia, and has taught Statistics for the Evening School here at USC.



Stan Haines

Other changes include the retirement of Joe Padgett and the resignation of Lori Thombs.

Joe Padgett retired on July 31, 2003, after more than 32 years service to the University, including serving as the Chairman of the Department of Statistics twice. Joe joined the Department of Mathematics in February of 1971 and first served as the Chairman of the Department of Statistics when Statistics split from Mathematics July 1, 1985 through June 30, 1993. He again accepted the responsibility as Chairman from July 1, 1996 through June 30, 2001. Upon retirement Joe was appointed Distinguished Professor Emeritus. He is still actively involved in the department in both teaching and research.

Lori Thombs resigned in August 2003, after having accepted a position at the University of Missouri, in Columbia, Missouri. Lori joined the Department of Statistics in August of 1985. Lori served the department in a number of capacities. She was undergraduate director in 1990 and from 1996-98 and assistant chair/graduate director from 1993-96. She won the AMOCO Teaching Award in 1989. We will miss Lori and wish her well in her new position.

We have had several changes in the organizational structure of the department. Edsel Pena is still the Graduate Director. Don Edwards was appointed Director of the Distance Program, with Edsel handling the M.S. and Ph.D. students and Don the MIS students and the certificate students. John Spurrier is still the Director of the Undergraduate Program. Georgiana Baker remains as Assistant to the Chair.

John Grego is still in the Stat Lab as the Director; however, Michele Nichols resigned her position as Manager and has been replaced by Roumen Vesselinov. Roumen received his Ph.D. degree in Statistics and Econometrics from the University of Economics in Sofia, Bulgaria, an M.A. degree in Eco-

nomics from the University of Albany, SUNY, and a B.A./M.A. in Economics and Statistics, from the University of Economics, Sofia, Bulgaria. He comes to us from the New York State Assembly, Ways and Means Committee, Economics Group in Albany, New York where he was employed as an Economist/Econometrician.



Roumen Vesselinov

Jim Lynch is still the Director of the Center for Reliability and Quality Sciences.

In the main office, Debra Williams continues as the Business/Office Manager and Anita Wood as the Student Services Coordinator and general Administrative Assistant. Ariel Turner returned this fall to serve as office assistant.

International Conference On Reliability and Survival Analysis University of South Carolina May 21-24, 2003

The International Conference on Reliability and Survival Analysis 2003 (ICRSA) was held on our campus in Columbia May 21-24, 2003. This conference was organized by the Department of Statistics and the Center for Reliability and Quality Sciences of USC. There were 202 registered participants with 39 of these residing outside the United States. Among the participants, 32 were graduate students. Dr. Jerome Odom, Provost of USC, and Dr. Andrew Sorenson, President of USC formally opened the conference.

The conference major goals were to enable active researchers in the areas of reliability and survival analysis to present current and future research to facilitate synthesis in these two areas which have common grounds but seem to develop almost independently of each other, and to enable young researchers and graduate students to interact with the research leaders of the two fields. Both objectives were achieved. Plenary talks were given by Prof. Lee-Jen Wei of Harvard University, Prof. Jerry Lawless of the University of Waterloo, Canada, Prof. Myles Hollander of Florida State University, Prof. Ross Prentice of the University of Washington and the Fred Hutchinson Cancer Research Center, Prof. Nozer Singpurwalla of George

Washington University, and Prof. Henry Block of the University of Pittsburgh. There were 30 invited sessions on a varied range of topics, with each session having 3 speakers. There were also 6 sessions with contributed talks. Eleven participants, mostly graduate students, also gave poster presentations.

Among the themes of the sessions were dynamic models of failure time data, Bayesian methods in survival analysis and reliability, accelerated testing, frailty models in survival analysis, software reliability, semiparametric and longitudinal models, reliability and quality, degradation models, goodness-of-fit, Weibull-related models, resampling and computer-intensive procedures, nonparametrics, recurrent event modelling, stress-strength testing and Bayes methods in repair models, competing risks, multivariate failure time data, residual life functions, quality of life issues, optimal treatment strategies with survival outcomes, adaptive designs, coherent systems and reliability classes, risk modeling, survival analysis and demography, and failure rates of mixtures. A copy of the final program and abstract book, as well as links to some talks and pictures from the conference can be found at the website: <http://www.stat.sc.edu/~padgett/ICRSA2003>.

Feedback has been positive, with the participants complimenting the organizers for a very well organized conference, excellent scientific program and speakers and enjoyable social events.



ICRSA 2003

Student Awards

At the University Awards Day ceremony in April, the 2003 Stephen D. Durham Award for Outstanding Performance as a Statistics Major went to Zachary Samples. Holly Battenhouse received the Department's Mu Sigma Rho Award in 2003. Mu Sigma Rho is the national Statistics Honor Society and the award is for outstanding academic performance.

Our incoming graduate students this fall again fared well in fellowship awards. W. J. Padgett Graduate Fellow-

ships for 2003-2004 were awarded to Roland Deustch and Thomas Jaki. Alice Adams-Bonaime and Emma McKinney obtained College of Science and Mathematics Fellowships.

Graduate student awards were given at the Recognition Colloquium in April. Brooke Buckley and Phil Yates were recognized for excellence as graduate teaching assistants; Daniela Nitcheva and Meredith Tomlinson as graduate research assistants. Meredith was also recognized for excellence in research and received the Department Citizenship Award while Francisco Vera was recognized for excellent academic performance. The award for outstanding first year graduate student was given to Melanie Autin.

Faculty Awards

Joe Padgett received the Paul Minton Service Award. This award was established by the Southern Regional Council on Statistics to recognize outstanding service to the statistics profession.

2003 Graduates

Each year we have to say "good-bye" to a number of students who are graduating. Although they will be missed, their success is gratifying and we wish them well in their careers. Receiving the Ph.D. degree were Daniela Nitcheva, Meredith Tomlinson and Parul Bhargava.

M.S. degrees were awarded to Keith Anderson, Cerissa Newdigate, Maureen Petkewich, DengFang Tang, Zhiwue (Maggie) Wang and Hua Wen. Wendy Roth successfully defended late in December but will receive her degree in the Spring. M.I.S. degrees went to Chris Finney and David Stamps. Ken Araujo received a certificate of graduate studies in applied statistics.

Also, Holly J. Battenhouse, Kelly G. Kiggans, Kevin W. Liebzeit and Zachary O. Samples received bachelor's degrees.

Stat Club and Mu Sigma

Stat Club and Mu Sigma Rho completed another successful year. Lori Thombs advised Stat Club until Fall, with Brian Habing taking over at that time. The current Stat Club officers are graduate student Rob Parody, and undergraduates Bonnie Coggins, Andrea Brezaie, and Tristan Amer. Don Edwards advised Mu Sigma Rho year-round. New members for Mu Sigma Rho include Maggie Wang, Melanie Autin, Keith Anderson, and Jonathan Quiton.

Stat Club began the spring semester with a hike in the Congaree Swamp

led by John Grego. Also in the spring, Jennifer Lasecki of Palmetto GBA gave an excellent presentation on that company's activities in curbing Medicare fraud and abuse. Palmetto GBA is one of the Midlands' largest employers of statisticians. Another excellent presentation was given by Bonnie Kegan (M.S.'91) about her work at the U.S. Census Bureau. Science Fair judges and the University Showcase booth personnel were also drawn from the Stat Club / Mu Sigma Rho ranks.

The annual picnic was again held on campus in May on the lawn outside LeConte with absolutely gorgeous weather. The biggest Mu Sigma Rho activity for the year, however, was the co-sponsorship of three doctoral students to attend the Joint Statistical Meetings in San Francisco. Parul Bhargava, Russ Stocker, and David Hare were supported in part by local Mu Sigma Rho funds, and in part by national Mu Sigma Rho funds, to attend the meeting, where they competed in the Stat Bowl competition. Russ Stocker placed 6th overall.

This fall the Stat Club and Mu Sigma Rho hosted with Phi Mu Epsilon, the mathematics honor society, the second annual careers night. John Spurrier gave some useful tips regarding interviewing and Georgie Baker gave some valuable insights based on her own career experiences. The university career center, biostatistics and the US Army made other presentations. Stat Club finished the year off with a trip to see the lights before Christmas at the Riverbanks Zoo.

Statistical Laboratory Activities

We had another transitional year at the Stat Lab. Our newly-hired Stat Lab Manager, Michele Nichols, left in August for another opportunity within USC. Michele remains in close touch and communicates frequently. Holmes Finch, our longtime former manager is now an Assistant Professor in Educational Psychology at Ball State University in Muncie, Indiana.

Initial response to our advertisement for the Manager position was sluggish, and we did not hire a new Manager until late November; one of our experienced grad students, Parul Bhargava, assisted with the gratis consulting in the interim. Our new Stat Lab Manager, Roumen Vesselinov, has a doctorate in econometrics and time series, and worked in upstate New York for many years before moving to South Carolina this year when his wife, Elena, was hired as an assistant professor in Sociology.

Professional Degrees and Distance Education

We have over 30 part-time students, most of these are in our Masters of Industrial Statistics (M.I.S) degree program and a few are in our Certificate of Applied Statistics (C.A.S.) program. Many are distance education students

All our distance education courses are now being video streamed. This allows our distance education students to conveniently view a lecture via the internet outside of the normal TV lecture time.

Other Faculty News and Activities

Tammie Dickenson has moved into her new house. Her twin boys are now 3 years old and also keep her quite busy. She is hard at work on her Ph.D. research in Educational Research and Measurement. Her dissertation is being co-directed by Brian Habing and Mike Seaman and she hopes to have her proposal defense in the next several months.

Georgie Baker helped negotiate a cooperative agreement with Midlands Technical College's Center for Quality regarding use of several of their training courses to satisfy two of our M.I.S. degree requirements. Georgie has also been named to the Center's Advisory Board.

Don Edwards has been quite busy with the distance education program. He set up a small studio in the department to prerecord course materials for video streaming purposes. Prerecording, in most cases, enhances the resolution of the course materials. He also continues with his research for the National Estuarine Research Reserve System sponsored by the National Oceanographic and Atmospheric Administration.

Nancy Glenn continues her research on Empirical Likelihood and its applications. She is currently collaborating with Renae Brodie of the Department of Biological Sciences.

John Grego has presented some of his work on automated process control at the IMS/SPES Spring Research Conference in Dayton, OH, and is working with three graduate students on statistical issues related to flood hydrology and hydraulics.

Brian Habing continues his research on educational measurement and psychometrics that is funded by the NSF. Brian also co-directed Holmes Finch's Ph.D., which was successfully defended last spring, and directed three M.S. students.

Kerrie Nelson, a newer faculty member who has recently joined the department, is carrying out research in the biostatistics area.

Joe and Faye Padgett completed the construction of their home in Pickens last summer. They happily retired to it this June but he is staying active professionally. Joe and Jim Lynch continue to work on reliability theory research funded by the National Science Foundation. Joe taught a course this fall at Clemson and is teaching a graduate course here via TV this Spring.

Etsel Peña is collaborating with researchers at MUSC, Florida State, Cornell, Chicago, and Georgia Tech on various research projects and grant proposals, and is working with several students involved in his grants. He is also involved in some research dealing with statistical methods relevant in research at the Center for Colon Cancer Research at USC.

Walt Piegorsch and Webster West continue their joint collaboration on low-dose toxicological risk estimation, supported by funding from the National Cancer Institute. Walt Piegorsch is also involved in an NSF-sponsored, cross-disciplinary research grant on the social and ethical implications of nanotechnology.

John Spurrier continues his research in multiple comparisons, directs two Ph.D. students, and is developing a web-based tutoring system for probability and mathematical statistics.

Peter Waddell taught an advanced level genetics course last spring on statistical phylogenetics and molecular evolution and, this fall, organized a half-day symposium on bioinformatics research being done at USC.

Webster West released an upgrade of DoStat.com, a website offering courseware and data analysis software for Statistics courses. This is funded by a three year NSF grant. DoStat has also been adopted by some publishers for use with several introductory statistics texts.

Alumni News

Patrick Flanagan (M.S. 1980) has moved from the US Bureau of the Census to the Bureau of Transportation Statistics.

Zach Ford, (B.S. 2002) is working as a research analyst with a bond firm in downtown Manhattan. He finds that it is very interesting working in the financial industry and its ever-changing environment.

Shiow-jen Lee (Ph.D. 1993) and her husband, Mark Rothmann, had a baby boy. Matthew David Mi-ing Rothmann was born on July 13, 2003. He weighed 7 lbs 1 oz. and was 20.5 inches long.

Jason (M.S. 1996) and Kelly (M.S. 1996) Richwine announced the birth of their daughter Allyson Nicole Richwine, born September 23, 2003. Allyson joins big brothers Josh (4 yrs) and Caleb (2 yrs).

Sharon Yeatts (M.S. 2002), formerly Sharon Dziuba, and her husband bought a house in December just outside of Richmond, VA. She currently is in the graduate program in the Department of Biostatistics at the Medical College of Virginia campus of Virginia Commonwealth University. She expects to finish her coursework in the spring.

Do You Have News?

As always, we want to hear from you! Please send information regarding job changes, spouse, children, address, awards, travel, etc., to Jim Lynch, Department of Statistics, University of South Carolina, Columbia, SC, 29208 (or lynch@stat.sc.edu). A form is included at the end of the Newsletter for your convenience.

We are also interested in learning how your USC education has helped you. In addition, any suggestions you have to improve our programs are welcome. You might be quoted in our brochures!

Student Recruitment

We are always looking for good students, and you are a vital part of our

recruiting network. Please send us names, addresses, and phone numbers of potential students for our undergraduate or graduate programs. John Spurrier, (803) 777-5072, is our Undergraduate Director and Edsel Peña, (803) 576-5813, is the Graduate Director. The address for both is Department of Statistics, University of South Carolina, Columbia, SC, 29208. They can also be reached by e-mail at spurrier@stat.sc.edu and pena@stat.sc.edu, respectively.

USC Educational Foundation

Contributions can be made to one of three funds for the Department within the USC Educational Foundation. Your gifts can be restricted in any way you specify. Some employers provide a matching gifts program, also.

Department Fund

The Department of Statistics Fund (Account 1A3410) supports annual awards for top undergraduate and graduate students, helps support student receptions, helps provide computer software for student use, and other activities. Major contributions could be used to establish undergraduate scholarships or graduate fellowships or help to establish chaired professorships.

Undergraduate Scholarships

Scholarships are an excellent tool for recruiting and retaining undergraduate statistics majors. They provide welcome financial assistance at a time when tuition costs are rising.

To assist our students and to improve our ability to recruit students, the Department has recently established a Statistics Alumni Scholarship Fund to provide scholarships for undergraduate statistics majors. We have received some generous donations from our alumni and faculty to get the fund started. We need to raise about \$13,000 more to be able to award our first Statistics Alumni Scholarship.

Our dream is to support several students each year. You might wish to make your gift in honor of a faculty or staff member who was particularly helpful to you at USC. Please make a contribution to the Statistics Alumni Scholarship Fund (Account 1A1421). A form for making a contribution is attached at the end of this newsletter. Contributions in any amount will be appreciated. Help the dream come true - help develop the next generation of statisticians.

Graduate Fellowships

The W. J. Padgett Fellowship Fund (Account 1B1593) was established in 1993 and helps us attract outstanding graduate students to the Department by offering supplemental fellowships annually.

Scholarships and fellowships are funded with interest from all three of the department's funds. Contributions to them will continue to help young statisticians into the future. Contribution forms for these funds are enclosed for your convenience.

The Statistics Department Faculty and Staff Wish You a Happy New Year!

We Want To Hear From You!

We would like to share information about your accomplishments and activities with your classmates and other graduates. If you have changed jobs, received a promotion or award, earned a new degree, married, traveled, or anything new has happened to you, please let us know. Send this form to Jim Lynch, Department of Statistics, University of South Carolina, Columbia, SC 29208 (or e-mail the information to lynch@stat.sc.edu).

Name: _____ Degree and Year: _____

Address: _____

E-mail: _____

News of any kind:

Thoughts on how your USC statistics education has helped you. May we quote you in our Departmental brochures?

Suggestions for the Department:

GIFT FOR THE DEPARTMENT OF STATISTICS

Name _____ SSN _____
Address _____
City _____ State _____ Zip _____

My Total Gift Will Be: \$ _____ Matching Gift Company _____
(Please enclose the company's matching gift form .)

I will make this gift as follows:

___ to be paid monthly quarterly semi-annually annually

Reminders to begin _____
___ I would like to give securities or other _____

This gift is to be restricted for the use of the Department of Statistics (Account 1A3410).

Check payable to USC Educational Foundation is enclosed.

You may list my name in the Report of Private Giving; otherwise, treat this gift as anonymous.

RETURN TO: Development Office, University of South Carolina, Byrnes 6th, Columbia, SC 29208

GIFT FOR "Statistics Alumni Scholarship Fund"

Name _____ SSN _____
Address _____
City _____ State _____ Zip _____

My Total Gift Will Be: \$ _____ Matching Gift Company _____
(Please enclose the company's matching gift form .)

I will make this gift as follows:

___ to be paid monthly quarterly semi-annually annually

Reminders to begin _____
___ I would like to give securities or other _____

This gift is to be restricted for the use of the Department of Statistics for the "Statistics Alumni Scholarship Fund." (Account 1A1421)

Check payable to USC Educational Foundation is enclosed.

You may list my name in the Report of Private Giving; otherwise, treat this gift as anonymous.

RETURN TO: Development Office, University of South Carolina, Byrnes 6th, Columbia, SC 29208

GIFT FOR "W. J. Padgett Fellowship Fund"

Name _____ SSN _____
Address _____
City _____ State _____ Zip _____

My Total Gift Will Be: \$ _____ Matching Gift Company _____
(Please enclose the company's matching gift form .)

I will make this gift as follows:

___ to be paid monthly quarterly semi-annually annually

Reminders to begin _____
___ I would like to give securities or other _____

This gift is to be restricted for the use of the Department of Statistics for the "W. J. Padgett Fellowship Fund." (Account 1B1593)

Check payable to USC Educational Foundation is enclosed.

You may list my name in the Report of Private Giving; otherwise, treat this gift as anonymous.

RETURN TO: Development Office, University of South Carolina, Byrnes 6th, Columbia, SC 29208